



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2018-0690; Product Identifier 2018-CE-022-AD]

RIN 2120-AA64

Airworthiness Directives; Gulfstream Aerospace Corporation Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain Gulfstream Aerospace Corporation Models G-IV and GIV-X airplanes. This proposed AD was prompted by a revision to the airworthiness limitations section (ALS) of the aircraft maintenance manual (AMM) based on fatigue and damage tolerance testing and updated analysis. This proposed AD would require revising the maintenance or inspection program to incorporate updated inspection requirements and life limits that address fatigue cracking of principal structural elements (PSEs). We are proposing this AD to address the unsafe condition on these products.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Gulfstream Aerospace Corporation, Technical Publications Dept., 500 Gulfstream Road, Savannah, GA 31402–2206; telephone: 800–810–4853; fax: 912–965–3520; email: pubs@gulfstream.com; Internet: http://www.gulfstream.com/product_support/technical_pubs/pubs/index.htm. You may view this service information at the FAA, Policy and Innovation Division, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0690; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the regulatory evaluation, any comments received, and other information. The street address for Docket Operations (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Ronald “Ron” Wissing, Airframe Engineer, Atlanta ACO Branch, FAA, 1701 Columbia Avenue, College Park, Georgia 30337; phone: 404-474-5552; fax: 404-474-5606; email: ronald.wissing@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2018-0690; Product Identifier 2018-CE-022-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. We will consider all comments received by the closing date and may amend this NPRM because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this NPRM.

Discussion

We received a revision to the ALS of the maintenance manual for Gulfstream Aerospace Corporation Models G-IV and GIV-X airplanes based on fatigue and damage tolerance testing and updated analysis that indicates current inspection programs may not be identifying cracks before reaching critical size. The revised ALS updates inspection requirements and life limits that address fatigue cracking of PSEs. We determined that these actions are necessary to address the identified unsafe condition. This condition, if not corrected, could result in fatigue cracking of PSEs, which could result in reduced structural integrity of the PSEs and critical components with consequent loss of control of the airplane.

Related Service Information under 1 CFR part 51

We reviewed Gulfstream Document No. GIV-GER-0008, Summary of Changes to the GIV Series and GIV-X Series Airworthiness Limitations, Revision B, dated March 12, 2018. The service information describes more restrictive inspection intervals or altered NDT inspection requirements and updated life limits that address fatigue cracking of the PSEs. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA’s Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require revising the AMM, Chapter 5 “Life Limits” and “Airworthiness Limitations” sections, to incorporate new inspections and life limits based on fatigue and damage tolerance (FTD) testing and updated analysis.

Costs of Compliance

We estimate that this proposed AD affects 711 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs				
Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Revise ALS and AMM	20 work-hour X \$85 per hour = \$1,700	Not applicable	\$1,700	\$1,208,700

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This proposed AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to small airplanes, gliders, balloons, airships, domestic business jet transport airplanes, and associated appliances to the Director of the Policy and Innovation Division.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Gulfstream Aerospace Corporation: Docket No. FAA-2018-0690; Product Identifier 2018-CE-022-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Gulfstream Aerospace Corporation Model G-IV airplanes, certificated in any category, serial numbers 1000 through 1535; and Model GIV-X airplanes, certificated in any category, serial numbers 4001 through 4363.

Note 1 to paragraph (c) of this AD: Model G-IV airplanes are also referred to by the marketing designations G300 and G400. Model GIV-X airplanes are also referred to by the marketing designations G350 and G450.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 27, Flight Controls; 32, Landing Gear; 52, Doors; 53, Fuselage; 55, Stabilizers; 57, Wings; 71, Power Plant-General; and 78, Engine Exhaust.

(e) Unsafe Condition

This AD was prompted by a revision to the airworthiness limitations section (ALS) of the Model G-IV and Model GIV-X maintenance manuals based on fatigue and damage tolerance testing and updated analysis. We are issuing this AD to detect and correct fatigue cracking of principal structural elements (PSEs). This unsafe condition, if unaddressed, could result in reduced structural integrity of a PSE or critical component and lead to loss of control of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Airplane Maintenance Manual Revisions

Within 12 months after the effective date of this AD, revise the ALS of your maintenance or inspection program (e.g., maintenance manual) to incorporate the airworthiness limitations specified in Gulfstream Document No. GIV-GER-0008, Summary of Changes to the GIV Series and GIV-X Series Airworthiness Limitations, Revision B, dated March 12, 2018, as applicable to your model and serial number airplane.

(h) No Alternative Actions or Intervals

After the maintenance or inspection program (e.g., maintenance manual) has been revised as required by paragraph (g) of this AD, no alternative inspections or intervals may be used unless approved as an alternative method of compliance in accordance with the procedures specified in paragraph (i) of this AD.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Atlanta ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (j)(1) of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(j) Related Information

(1) For more information about this AD, contact Ronald “Ron” Wissing, Airframe Engineer, Atlanta ACO Branch, FAA, 1701 Columbia Avenue, College Park, Georgia 30337; phone: 404-474-5552; fax: 404-474-5606; email: ronald.wissing@faa.gov.

(2) For service information identified in this AD, contact Gulfstream Aerospace Corporation, P.O. Box 2206, Savannah, Georgia 31402-2206; telephone: (800) 810-4853; fax 912-965-3520; email: pubs@gulfstream.com; Internet: http://www.gulfstream.com/product_support/technical_pubs/pubs/index.htm. You may view this referenced service information at the FAA, Policy and Innovation Division, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

Issued in Kansas City, Missouri, on July 25, 2018.

Pat Mullen,
Aircraft Certification Service
Acting Deputy Director, Policy and Innovation Division, AIR-601

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